

### COMPRESSOR DEFINITION

Designation	NJ 2212GK
Nominal Voltage/Frequency	208-230 V 60 Hz
Engineering Number	943BD11

### A - APPLICATION / LIMIT WORKING CONDITIONS

1 Type	Hermetic reciprocating compressor		
2 Refrigerant	R-404A		
3 Nominal voltage and frequency	208-230 / 60	[ V / Hz ]	
4 Application type	Low Back Pressure R404A		
4.1 Evaporating temperature range	-40°C to -10°C	(-40°F to 14°F)	
5 Motor type	CSCR		
6 Starting torque	HST - Hight starting torque		
7 Expansion device	Capillary tube or Expansion valve		
8 Compressor cooling	Operating voltage range		
		50 Hz	60 Hz
8.1 LBP (32°C Ambient temperature)	-	-	-
8.2 LBP (43°C Ambient temperature)	-	-	-
8.3 HBP (32°C Ambient temperature)	-	-	-
8.4 HBP (43°C Ambient temperature)	-	-	-
9 Maximum condensing pressures/temperature			
9.1 Operating (gauge)	25.7	[kgf/cm <sup>2</sup> ] (365 psig)	/ °C - °F
9.2 Peak (gauge)	28.7	[kgf/cm <sup>2</sup> ] (408 psig)	/ °C - °F
10 Maximum winding temperature	130	[ °C ]	

### B - MECHANICAL DATA

1 Commercial designation	1 1/2	[hp]
2 Displacement	34.38	[cm <sup>3</sup> ] (2.098 cu.in)
2.1 Bore [mm]	42.850	
2.2 Stroke [mm]	23.850	
3 Lubricant charge	750	[ml] (25.36 fl.oz.)
3.1 Lubricants approved		
3.2 Lubricants type/viscosity	ESTER / ISO22	
4 Weight (with oil charge)	21.77	[kg] (47.99 lb.)
5 Nitrogen charge	0.2 to 0.3	[kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig)

### C - ELETRICAL DATA

1 Nominal Voltage/Frequency/Number of Phases	208-230 V 60 Hz 1~ (Single phase)	
2 Starting device type	Voltage Relay	
2.1 Starting device	RVA2L3C	
3 Start capacitor	88-108(330)	[µF(VAC minimum)]
4 Run capacitor	20(440)	[µF(VAC minimum)]
5 Motor protection	3HM198-105	
6 Start winding resistance	5.66	[Ω at 25°C (77°F)] +/- 8%
7 Run winding resistance	1.21	[Ω at 25°C (77°F)] +/- 8%
8 LRA - Locked rotor amperage (60 Hz)	-	[A] - Measured according to UL 984
9 FLA - Full load amperage L/MBP (60 Hz)	-	[A] - Measured according to UL 984
10 FLA - Full Load Amperage HBP (60 Hz)	-	[A] - Measured according to UL 984
11 Approval boards certification	UL	

### D - PERFORMANCE - CHECK POINT DATA

TEST CONDITIONS: @208V60Hz			ASHRAELBP32 Fan		Evaporating temperature (Condensing temperature		-23.3°C (-9.94°F) 54.4°C (129.92°F)		
Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%			
[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]	
5911	1490	1732	1154	5.43	40.07	5.12	1.29	1.50	

### E - PERFORMANCE - CURVES

TEST CONDITIONS: @208V60Hz		ASHRAE32 Fan			(Condensing temperature 35°C (+95°F))					
Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	2312	583	678	502	2.55	15.55	4.53	1.14	1.33
-35	(-31)	3526	889	1033	705	3.49	23.78	5.06	1.28	1.48
-30	(-22)	4946	1246	1449	907	4.43	33.45	5.52	1.39	1.62
-25	(-13)	6617	1667	1939	1110	5.37	44.95	5.96	1.50	1.75
-20	(- 4)	8586	2164	2516	1317	6.33	58.64	6.46	1.63	1.89
-15	(+ 5)	10900	2747	3194	1528	7.32	74.90	7.07	1.78	2.07
-10	(+14)	13604	3428	3986	1745	8.35	94.10	7.86	1.98	2.30

TEST CONDITIONS: @208V60Hz		ASHRAE32 Fan			(Condensing temperature 45°C (+113°F))					
Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	1705	430	500	436	2.12	11.44	3.89	0.98	1.14
-35	(-31)	2959	746	867	647	3.11	19.92	4.56	1.15	1.34
-30	(-22)	4366	1100	1279	864	4.13	29.48	5.09	1.28	1.49
-25	(-13)	5971	1505	1750	1089	5.19	40.48	5.51	1.39	1.61
-20	(- 4)	7822	1971	2292	1323	6.32	53.31	5.90	1.49	1.73
-15	(+ 5)	9965	2511	2920	1569	7.50	68.33	6.32	1.59	1.85
-10	(+14)	12446	3136	3647	1828	8.77	85.93	6.82	1.72	2.00

TEST CONDITIONS: @208V60Hz		ASHRAE32 Fan			(Condensing temperature 55°C (+131°F))					
Evaporating temperature		Cooling capacity +/- 5%			Power consumption +/- 5%	Current consumption +/- 5%	Gas flow rate +/- 5%	EFFICIENCY RATE +/- 7%		
°C	(°F)	[Btu/h]	[kcal/h]	[W]	[W]	[A]	[kg/h]	[Btu/Wh]	[kcal/Wh]	[W/W]
-40	(-40)	1117	282	327	373	1.72	7.47	3.09	0.78	0.90
-35	(-31)	2414	608	707	592	2.75	16.23	3.96	1.00	1.16
-30	(-22)	3811	960	1117	823	3.84	25.69	4.60	1.16	1.35
-25	(-13)	5354	1349	1569	1069	5.02	36.23	5.05	1.27	1.48
-20	(- 4)	7091	1787	2078	1330	6.30	48.22	5.37	1.35	1.57
-15	(+ 5)	9066	2285	2657	1609	7.68	62.04	5.64	1.42	1.65
-10	(+14)	11327	2854	3319	1907	9.19	78.05	5.92	1.49	1.73

### F - EXTERNAL CHARACTERISTICS

1 Base plate	American Standard		
2 Tray holder	No		
3 Connectors			
3.1 SUCTION	12.77 +0.08/+0.00	[mm]	(0.503" +0.003"/+0.000")
3.1.1 Material	Copper		
3.1.2 Shape	Vertical		
3.2 DISCHARGE	8 +0.07/+0.00	[mm]	(0.315" +0.003"/+0.000")
3.2.1 Material	Copper		
3.2.2 Shape	Slanted J		
3.3 PROCESS	6.42 +0.08/+0.00	[mm]	(0.253" +0.003"/+0.000")
3.3.1 Material	Copper		
3.3.2 Shape	Vertical		
3.4 Oil cooler (Copper)	No	[mm]	
3.5 Connector sealing	Rubber Plugs		